

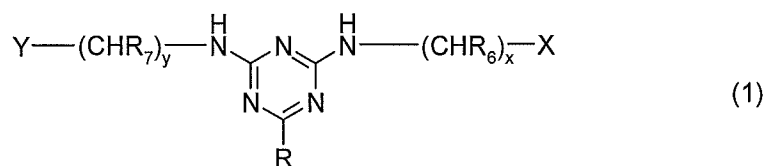
Remarks

Currently pending are claims 1-12.

35 U.S.C. § 103

The Examiner rejected claims 1-5 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Gerendas et al. (US Pat. No. 3,963,714) in view of Bartl et al. (WO 03/012194). The Examiner also rejected claims 1-12 as being unpatentable over Perrin et al. (US 4,180,664) in view of Gerendas et al. and Bartl et al. Applicants traverse these rejections for the following reasons.

Claim 1 is directed to a method of increasing the depth of shade of dyed natural or synthetic polyamide fibre materials, which comprises treating the fibre material before, during or after dyeing with a liquor comprising a compound of formula (1):



where x, y, R, R₆ and R₇ are defined as above and X and Y are, each independently of the other, mercapto, or -NR₃R₄, wherein R₃ and R₄ are, each independently of the other, hydrogen or C₁-C₁₂ alkyl.

The Examiner asserts the recited compounds in Perrin et al. and Gerendas et al. are similar to the claimed compound of formula (1) “because the reaction of amine group depending on the acids used can be converted to their conjugate bases by reaction with bases derived from weaker acids (stronger bases), thus the recited [claimed compound of formula (1)] in liquor solution as claimed would be been the same as recited compound

by Perrin et al. and Gerendas et al.” Applicants respectfully submit the Examiner’s assertion is incorrect.

Hydrogenated ammonium ions are produced by the acidification of tertiary amines. Quaternary ammonium salts (like the compounds disclosed in Perrin et al. and Gerendas et al.) are produced by the reaction of tertiary amines with, for example, alkyl halides. While the syntheses of hydrogenated ammonium ions is reversible (i.e. addition of strong alkali to the hydrogenated ammonium ions gives rise to the reformation of the tertiary amines), quaternary ammonium salts are stable and do not react with aqueous alkali solutions. Rather, the solid quaternary ammonium salts will decompose and reform tertiary amines and alkyl halides only upon heating. Accordingly, the tertiary amines of claim 1 and the quaternary ammonium salts of Gerendas et al. and Perrin et al. cannot be looked upon as equivalent compounds. Therefore, the recited method claims are clearly distinguished from these publications.

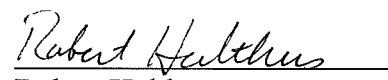
The Examiner further requests comparative data be submitted to demonstrate the claimed method is actually different from and unexpectedly better than the combined teachings of Perrin et al., Gerendas et al. and Bartl et al. However, as stated in Applicants previous Response submitted 2/18/10, each of the cited publications teaches the treatment of different substrates with different auxiliaries for different purposes and the combination of these publications do not teach or suggest each of Applicants claimed limitations rendering them obvious. In particular, Gerendas et al. teach the use of quaternary ammonium salts as a retarder in the dyeing of polyacrylonitrile fibers with cationic dyes. Thus, Gerendas et al.’s method treats a completely different substrate (polyacrylonitrile fibers) with a completely different compound (quaternary ammonium

salt) than Applicants presently claimed method (i.e. synthetic polyamide fibers and a compound of formula (1)). Moreover, Perrin et al. teach the use of quaternary ammonium salts in the dyeing of cellulose fibers with anionic dyes. Again, Perrin et al.'s method treats a completely different substrate (cellulose fibers) with a completely different compound (quaternary ammonium salt) than Applicants claimed method. Finally, while Bartl et al. teach a method of dyeing micro-fibres composed of at least one polyamide component, Bartl et al. does not expressly disclose or suggest the use of a compound of formula (1) recited in claim 1. Therefore, these publications, alone or in combination, do not teach or suggest each of Applicants claimed limitations and therefore do not render such claims obvious.

Accordingly, in view of the remarks above, Applicants respectfully request the rejections be withdrawn. Should any fee be due in connection with the filing of this document, the Commissioner for Patents is hereby authorized to deduct said fee from Huntsman Corporation Deposit Account No. 08-3442.

Respectfully Submitted,

Huntsman Corporation
10003 Woodloch Forest Drive
The Woodlands, Texas 77380
(281) 719-4553


Robert Holthus
Reg. No. 50,347
Attorney for Applicants
Date: 12/21/10